

What is claimed is:

1. A method for fabricating an MIM capacitor of a semiconductor device comprising:

depositing a metal layer to be used as a lower electrode of an MIM capacitor;

depositing a sacrificial layer on the metal layer;

removing some part of the sacrificial layer to form the MIM capacitor thereon;

depositing a dielectric layer and an upper metal layer; and

forming the MIM capacitor by patterning the dielectric layer and the upper metal layer.

2. The method as defined by claim 1, further comprising:

forming a via hole by depositing and patterning an interlayer dielectric after forming the MIM capacitor;

depositing a barrier metal layer on the via hole;

filling the via hole with a metal;

flattening the via hole; and

depositing and patterning a metal layer.

3. The method as defined by claim 2, wherein the metal is selected from the group of tungsten, copper family elements, and platinum family metals.

4. The method as defined by claim 2, wherein the barrier metal layer is made of a high fusion point metal or nitride thereof, and wherein the barrier metal layer is configured to have one of a single layer structure and a multi-layer structure.

5. The method as defined by claim 1, wherein the sacrificial layer is used as an etch stopping layer.
6. The method as defined by claim 1, wherein the sacrificial layer is silicon oxide or silicon nitride.
7. The method as defined by claim 1, wherein the sacrificial layer has a thickness of 100~200 Å.
8. The method as defined by claim 1, wherein the dielectric layer is made of a material selected from the group of SiN, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, TaON, TiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, ZrO<sub>5</sub>, (Ba,Sr)TiO<sub>3</sub>, (Pb,Zr)TiO<sub>3</sub>, and (Pb,La)(Zr,Ti)O<sub>3</sub>, and wherein the dielectric layer is configured to have one of a single layer structure or a multi-layer structure.
9. The method as defined by claim 1, wherein the dielectric layer has a thickness of 200~1000 Å.
10. The method as defined by claim 1, wherein the upper and the lower metal layers of the MIM capacitor are made of at least one of aluminum and a transition element.